

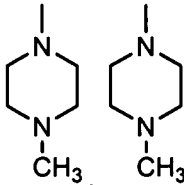
REMARKS

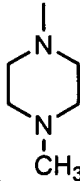
Status of the Claims

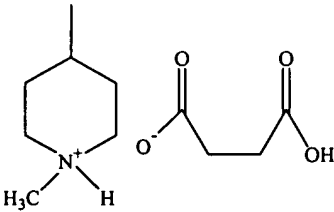
Claims 1-85 are currently pending in this Application, with Claims 4, 6-13, 20, 22-29, 33, 35-42, 46, 48-55, 59, 61-68, 72, and 74-81 withdrawn from consideration. Claims 1, 2, 14, 30, 43, and 56 are amended herein. No amendment introduces new matter to this application. New Independent Claims 84 and 85 are presented. Support for the new claims is found throughout the specification, including the original claims, therefore no new matter is added. Upon entering new Claims 84 and 85, Claims 1-3, 5, 14-19, 21, 30-32, 34, 43-45, 47, 56-58, 60, 69-71, 73, 82-85 are pending and under examination.

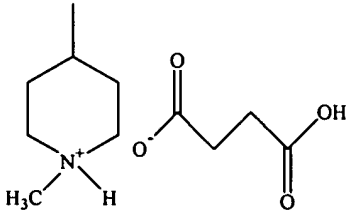
Amendment of Claims to Correct Typo

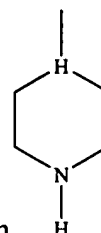
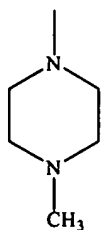
Claims 1, 2, 14, 30, 43, and 56 are amended to correct typographical errors. More

specifically, substituents  are removed from R^{2a} in Claims 1, 2, and 30 because

when p¹ is 0 or 1 in R^{2a}, these substituents are duplicates of substituents  of R^{3a} in those

claims. Substituent  is removed from R^{3a} of Claims 1, 2, 14, 30, and

56 because it is duplicate of substituent  of R^{3a} in those claims.



Substituent CH_3 of R^{3a} in Claims 1, 2, 14, 30, 43 and 56 is replaced with H . Support for the amendment to the claims is found throughout the specification, including the original claims, therefore no new matter is added.

Rejection of Claims Under 35 U.S.C. § 103(a)

The determination of obviousness under 35 U.S.C. § 103 is a legal conclusion based on factual evidence.¹ The prior art relied upon, coupled with the knowledge generally available in the art at the time of the invention, must contain some suggestion or incentive that would have motivated one of ordinary skill in the art to modify a reference or to combine references.² Further, the prior art reference or combination of references must teach or suggest all the limitations of the claims.³ To support a conclusion of obviousness, “either the references must expressly or impliedly suggest the claimed combination or the [PTO] must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.”⁴ In evaluating obviousness, the Federal Circuit made it very clear that one must look to see if “the prior art would have suggested to one of ordinary skill in the art that this process should be carried out and would have had a reasonable likelihood of success viewed in light of the prior art.”⁵ Further, “[i]t is impermissible within the framework of section 103 to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art.”⁶

A. Claims 1-3, 5, 14-19, 21, 30-32, 34, 43-45, 47, 56-58, 60, 69-71, 73, 82, and 83 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Moriarty et al. WO 01/47897 (“Moriarty”). It is the position of the PTO that *Moriarty*’s generic triazine formula I (page 3)

¹ *Burlington Indus., Inc. v. Quigg*, 822 F.2d 1581, 1584, 3 U.S.P.Q.2d 1436, 1439 (Fed. Cir. 1987).

² *In re Fine*, 837 F.2d 1071, 1074, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988).

³ Emphasis added; see: *In re Wilson*, 424 F.2d 1382, 1385, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970).

⁴ Emphasis added; *Ex parte Clapp*, 227 U.S.P.Q. 972, 973 (Bd. Pat. App. & Int. 1985).

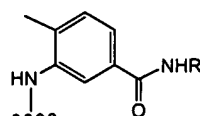
⁵ *In re Dow Chemical Co. v. American Cyanamid Co.*, 837 F.2d 469, 473, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988).

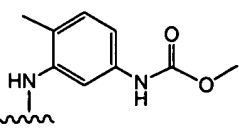
⁶ *In re Wesslau*, 353 F.2d 238, 241, 147 U.S.P.Q. 391, 393 (C.C.P.A. 1965).

with substituents [V]-R⁶, Z and R¹¹ overlap Applicants' Zx, R^{7a} and R^{2a}, thereby rendering obvious Applicants' claims. The PTO further states that *Moriarty* teaches the equivalency of the exemplified compounds at Tables 1-4 and the general syntheses on pages 64-102 and Applicants claimed compounds. Respectfully, Applicants traverse this rejection.

Respectfully, Applicants maintain that *Moriarty* provides no teaching, suggestion, or incentive, either expressly or impliedly, that would have motivated one of ordinary skill in the art to modify what this reference fairly discloses to arrive at Applicants' claimed invention.

Applicants reviewed the preparative information on pages 64-74 and elsewhere in *Moriarty*, and respectfully maintain that preparations appear limited to specific triazine

compounds that contain a benzamide-containing amino substituent of the type  or

a carbamate-containing amino substituent of the type , constituting a trivial proportion of the total compounds encompassed by formula I. In particular, *Moriarty* does not teach how to make any species encompassed within the scope of Applicants' Claims 1-3, 5, 14-19, 21, 30-32, 34, 43-45, 47, 56-58, 60, 69-71, 73, 82, and 83-85. Thus, *Moriarty* does not teach how to make triazine compounds that include any combination of substituents Z, R¹¹, and [V]-R⁶ that overlap Applicants' claimed compounds. Therefore, the syntheses on pages 64-74 and compounds of Tables 1-4 neither teach nor suggest Applicants' claimed invention. In addition, when all compounds disclosed in *Moriarty* are compared against the genus disclosed in Claims 1, 14, 30, 43, 56, 69, and 82, no overlap whatsoever is discovered.

Respectfully, Applicants maintain that all the possible compounds encompassed within *Moriarty*'s formula I constitute, *at best*, a "wish list" of hypothetical compounds the *Moriarty* Applicant would hope to patent. The mere inclusion of a chemical moiety in an exhaustive "laundry list" encompassing virtually every conceivable substituent, is not a theory, a suggestion, or a teaching, and is insufficient to teach the "equivalency" of the formula I substituents and Applicant's claimed compounds, absent a reasonable likelihood of success. The reasonable likelihood of success is absent because, at best, *Moriarty* discloses how to make only a fraction of the formula I compounds, namely specific triazines containing a benzamide-type amino

substituent or a carbamate-type amino substituent as shown above in order to function as an inhibitor of TNF- α . Accordingly, *Moriarty* can not teach or suggest all the limitations of the Applicants' Claims 1-3, 5, 14-19, 21, 30-32, 34, 43-45, 47, 56-58, 60, 69-71, 73, 82, and 83.

As further evidence that *Moriarty* is not enabled, Applicants note that generic formula I (pages 3-5) cited by the PTO against Applicants' claimed invention, is identically encompassed in Claim 1 of *Moriarty's* WO 01/47897 (International Application Number PCT/US00/35289). Regarding this claim, the International Search Report ("ISR") states the following.

Present Claim 1 relates to an extremely large number of possible compounds/. Support with the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT is to be found, however, for only a very small proportion of the compounds claimed. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible.

PCT/US00/35289 ISR, MAILED APRIL 18, 2001, PAGE 3, PARA. 1.

Thus, according to the International Searching Authority, *Moriarty* does not "disclose the invention [*Moriarty's* formula I] in a manner sufficiently clear and complete for the invention to be carried out by a person skilled in the art" (PCT Article 5) and/or *Moriarty's* formula I is not "fully supported by the description" (PCT Article 6). Accordingly, *Moriarty* does not have an enabling disclosure for genus of compounds cited by the PTO against Applicants' claimed invention, and therefore cannot constitute a reference under 35 U.S.C. § 103(a). In contrast to the PTO's alleged equivalency of *Moriarty's* exemplified compounds and Applicants claimed compounds, the International Searching Authority recognized the fact that there is no teaching or suggestion in *Moriarty* regarding the compounds of formula I. Without a suggestion or incentive to modify *Moriarty*, the formula I genus on pages 3-5 of *Moriarty* cannot serve to render obvious Applicants' claimed invention.

Further, Applicants emphasize that *Moriarty's* "wish list" of hypothetical compounds constitutes, *at best*, a call for virtually endless experimentation. The Federal Circuit has held that suggestion for virtually endless experimentation is not a case for *prima facie* obviousness.⁷ The

⁷ *In re Dow Chemical Co.*, 837 F.2d 469, 473, 5 USPQ2d 1529, 1532 (Fed. Cir. 1989).

foundation of this holding is analogous to the Federal Circuit's holding in *In re Geiger*, where the court held:

At best, in view of these disclosures, one skilled in the art might find it obvious to try various combinations of these known scale and corrosion prevention agents. However this is not the standard of 35 U.S.C. § 103. (citations omitted)

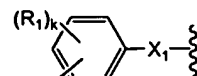
815 F.2D AT 268, 2 USPQ2D AT 1278.

Applicants respectfully maintain that no convincing line of reasoning has been offered by the PTO as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of *Moriarty*. No teaching or suggestion can be found in Tables 1-4 (pages 75-102), in the syntheses on pages 64-74, in generic formula I, or elsewhere in *Moriarty*, that would render obvious Applicants' claimed invention. Without a suggestion or incentive to modify *Moriarty*, the formula I genus cannot serve to render obvious Applicants' claimed invention.

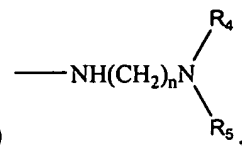
Respectfully, Applicants maintain that Claims 1-3, 5, 14-19, 21, 30-32, 34, 43-45, 47, 56-58, 60, 69-71, 73, 82, and 83-85 are not rendered *prima facie* obvious in view of the cited reference under 35 U.S.C. § 103(a) for the reasons stated, and respectfully request that this rejection be withdrawn and these claims be allowed.

B. Claims 1-3, 5, 14-19, 21, 30-32, 34, 43-45, 47, 56-58, 60, 69-71, 73, 82, and 83 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kamikubo et al. US 6,123,763 ("*Kamikubo*"). According to the PTO, *Kamikubo* teaches the equivalency of *Kamikubo*'s exemplified compounds and Applicants' claimed compounds, thereby rendering obvious Claims 1-3, 5, 14-19, 21, 30-32, 34, 43-45, 47, 56-58, 60, 69-71, 73, 82, and 83. The PTO points to examples shown at col. 4-17 and Table 1, and *Kamikubo*'s definitions of substituents Y₁, Y₂, X₁, R₁, and R₂ in formula 1 at col. 2 to support this assertion, stating that *Kamikubo*'s definitions "include instant compounds claimed generically" (Office Action mailed April 19, 2006, page 4, paragraph 5, page 5 paragraphs 1-4). In view of the amendments to Claim 1, Applicants respectfully assert that this rejection is obviated.

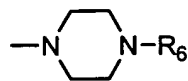
To avoid overlap with *Kamikubo's* substituents R_1 (an amino group) of



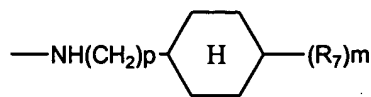
(col. 2, lines 14-20), or Y_1 (col. 2, lines 20-58), more specifically formula (2)



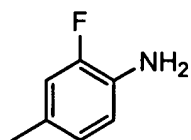
formula (4)



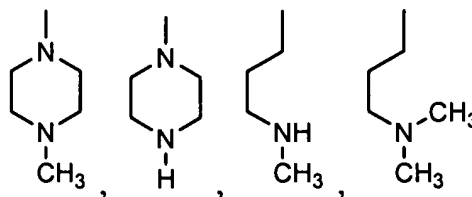
or formula (5),



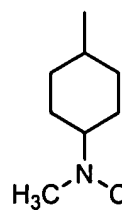
, substituent



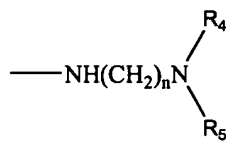
is removed from R^{1a} of Claim 1 of the present invention. New Claim 84 is



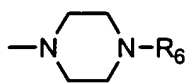
subgenera of original Claim 1 with Substituents



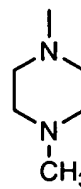
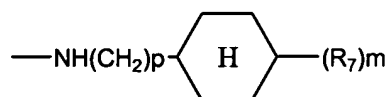
removed from R^{3a} to avoid *Kamikubo's* substituents Y_1 formula (2)



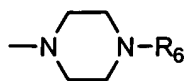
, formula (4)



, or formula (5),



New Claim 85 is subgenera of original Claim 1 with Substituent



avoid *Kamikubo's* substituents Y_1 formula (4). By amending Claim 1 as provided herein, there is no combination of substituents disclosed in *Kamikubo* that overlap with any of Applicants' claimed compounds.

Kamikubo discloses trisubstituted triazines for use as pigment dispersing agents for inks or coating compositions. The compounds of the present invention are used to treat diseases or to modulate enzymes in a human or an animal. Respectfully, Applicants maintain that the amendment to Claim 1 completely removes any overlap or commonality between Applicants' claimed invention and any compound or composition disclosed by *Kamikubo*. Specifically, there is no disclosure of any type in *Kamikubo*, and there is no combination of substituents in *Kamikubo*'s broad formula 1 (col. 2) that teaches or suggests any of Applicants' claimed compounds. Because there is no overlap or commonality between Applicants' claimed invention and any compound or composition disclosed in *Kamikubo*, Applicants maintain that one of ordinary skill would not, *and could not*, look to *Kamikubo* to learn how to select substituents so as to arrive at Applicants' claimed invention. Therefore, *Kamikubo* cannot render the claimed invention obvious, because it does not teach or suggest all the limitations of Claim 1.

Respectfully, Applicants maintain that *Kamikubo* provides no teaching, suggestion, or incentive, either expressly or impliedly, that would have motivated one of ordinary skill in the art to modify what this reference fairly discloses about pigment dispersing agents to arrive at compounds for treating disease in a human or an animal. *Kamikubo* and Applicant's claimed invention are situated in vastly different technical fields altogether. *Kamikubo* is not concerned with a search for pharmaceutically-active compounds, and the *Kamikubo* specification is devoid of any discussion that suggests to one of ordinary skill any substituents that would be applicable to pharmaceutically-active compounds. Therefore, *Kamikubo* is not an enabling disclosure with respect to Applicants' claimed invention, because it does not support the proposition for which it is cited. Without a suggestion or incentive to modify *Kamikubo*'s pigment dispersing agents for inks/coatings to somehow arrive at a pharmaceutical compound/composition, neither the genus of compounds disclosed in *Kamikubo* (col. 2, line 1-col. 3, line 29), nor species of *Kamikubo* (col. 3-17) can serve to render obvious Applicants' Claim 1.

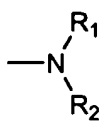
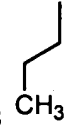

The Federal Circuit has required that, "[f]or a chemical compound, a prima facie case of obviousness requires 'structural similarity between claimed and prior art subject matter . . . where the prior art gives reason or motivation to make the claimed compositions'."⁸ Applicants

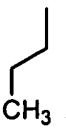
⁸ Emphasis added. *Yamanouchi Pharmaceutical Co., Ltd. v. Danbury Pharmacal, Inc.*, 231 F.3d 1339, 1343 (Fed. Cir. 2000), quoting *In re Dillon*, 919 F.2d 688, 692 (Fed. Cir. 1990) (en banc); accord, *In re Papesch*, 50 C.C.P.A. 1084, 315 F.2d 381, 391 (C. C. P. A. 1963).

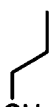

respectfully maintain that the PTO fails to establish *prima facie* obviousness using *Kamikubo* for two reasons: 1) there is a complete lack of structural overlap between Applicants' claimed invention and *Kamikubo*'s compounds; and 2) *Kamikubo*'s disclosure of triazines for use as pigment dispersing agent provides absolutely no reason or motivation to make the Applicants' claimed compositions. While one of ordinary skill cannot simply take various substituents and combine them without a commonality of purpose or characteristics that give the artisan some reasonable expectation of success, any attempt to do so using *Kamikubo* still fails to teach or suggest Applicant's claimed invention.

Respectfully, Applicants assert that in view of the amendments to Claim 1, *Kamikubo* cannot be relied upon by the PTO to assert obviousness of the claimed invention. Therefore, Applicants request that the rejection of Claims 1-3, 5, 14-19, 21, 30-32, 34, 43-45, 47, 56-58, 60, 69-71, 73, 82, and 83 under 35 U.S.C. § 103(a) in view of *Kamikubo* be withdrawn, and the claims be allowed.

C. Claims 1-3, 5, 14-19, 21, 30-32, 34, 43-45, 47, 56-58, 60, 69-71, 73, 82, and 83 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Daeyaert et al. US 6,150,360 ("*Daeyaert*"). According to the PTO, *Daeyaert* discloses triazine formula I with substituents L, A, R¹, R², R³, and R⁴, for treating HIV infection (Abstract and col. 1, line 30-col. 2, line 25). Apparently, it is the position of the PTO that *Daeyaert* teaches the equivalency of *Daeyaert*'s exemplified compounds and any substituents of *Daeyaert*'s formula I (col. 1) with Applicants' claimed compounds, thereby rendering obvious Claims 1-3, 5, 14-19, 21, 30-32, 34, 43-45, 47, 56-58, 60, 69-71, 73, 82, and 83. The PTO points to examples shown at col. 9, Table 1, and Table 2; *Daeyaert*'s definitions of L, A, R¹, R², R³, R⁴, and n; and *Daeyaert*'s preferred embodiments to support this assertion. In view of the amendments to Claims 1, 14, 43 and 56, Applicants respectfully assert that this rejection under 35 U.S.C. § 103(a) is obviated.

To avoid overlap with *Daeyaert*'s substituents , substituents  and  are

removed from R^{7a} in Claims 1 and 43 of the present invention, substituent  is removed from

R^{5a} in Claim 14 of the present invention., substituents  and  are removed from R^{5a} of Claim 56 of the present invention. By amending Claims 1, 14, 43 and 56 as provided herein, there is no combination of substituents disclosed in *Daeyaert* that overlap with any of Applicants' claimed compounds.

Respectfully, Applicants maintain that the amendments to Claims 1, 14, 43 and 56 completely remove any overlap or commonality between Applicants' claimed invention and any compound or composition disclosed by *Daeyaert*. Specifically, there is no disclosure of any type in *Daeyaert*, and there is no combination of substituents in *Daeyaert's* broad formula I (col. 1, line 30-col. 2, line 25), that teaches or suggests any of Applicants' claimed compounds. Thus, one of ordinary skill would not, *and could not*, look to *Daeyaert* to learn how to select substituents so as to arrive at Applicants' claimed invention. Therefore, *Daeyaert* cannot teach or suggest all the limitations of the Applicants' claimed invention.

Applicants further maintain that, aside from the simple triazine core, there is no structural similarity between any of *Daeyaert's* compounds and Applicants' compounds. Assuming, *arguendo*, that there was some structural similarity between *Daeyaert's* compounds and Applicants' compounds, a proposition with which Applicants strongly disagree, Applicants note that Federal courts have long required consideration of the particular utility of a compound in determining obviousness. When the Board refused to consider the anti-inflammatory activity of the claimed compounds in evaluating their patentability,⁹ the CCPA countered, "[p]atentability has not been determined on the basis of the obviousness of structure alone . . . [i]n fact, where patentability was found in [previous] cases it was found in spite of close similarity of chemical structure, often much closer similarity than we have here."¹⁰ As a result of this lack of structural similarity between *Daeyaert's* compounds and Applicants' compounds, *Daeyaert* provides no teaching, suggestion, or incentive, either expressly or impliedly, that would have motivated one of ordinary skill in the art to modify what this reference fairly discloses to arrive at Applicants' claimed invention.

⁹ See *In re Papesch*, 315 F.2d 381, 137 U.S.P.Q. 43 (C.C.P.A. 1963).

¹⁰ Emphasis added. *Id.* at 391, 137 U.S.P.Q. at 51.

Respectfully, Applicants assert that in view of the amendments to Claims 1, 14, 43 and 56 and the complete lack of motivation to modify the teachings of *Daeyaert* to arrive at Applicants' invention, *Daeyaert* cannot render obvious Applicants' claimed invention. Therefore, Applicants request that the rejection of Claims 1-3, 5, 14-19, 21, 30-32, 34, 43-45, 47, 56-58, 60, 69-71, 73, 82, and 83 under 35 U.S.C. § 103(a) in view of *Daeyaert* be withdrawn, and these claims be allowed.

D. Claims 1-3, 5, 14-19, 21, 30-32, 34, 43-45, 47, 56-58, 60, 69-71, 73, 82, and 83 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Erickson et al. WO 01/47921 ("*Erickson*"). According to the PTO, *Erickson* discloses triazine formula I with substituents X, X¹, X², Y, R¹, R², R³, and R⁴ (Abstract and pages 4-11). Apparently, it is the position of the PTO that *Erickson* teach *Erickson's* formula I (Abstract) with Applicants' claimed compounds, thereby rendering obvious Claims 1-3, 5, 14-19, 21, 30-32, 34, 43-45, 47, 56-58, 60, 69-71, 73, 82, and 83. The PTO points to examples shown at pages 4-11, pages 23-35 and pages 36-54 (Table 1); *Erickson's* definitions of X, X¹, X², Y, R¹, R², R³, and R⁴; and *Erickson's* preferred embodiments to support this assertion. Respectfully, Applicants traverse this rejection.

Respectfully, Applicants maintain that *Erickson* provides no teaching, suggestion, or incentive, either expressly or impliedly, that would have motivated one of ordinary skill in the art to modify what this reference fairly discloses to arrive at Applicants' claimed invention.

Applicants have reviewed the preparative information on pages 23-35 and elsewhere in *Erickson* and respectfully maintain that preparations appear limited to specific triazine compounds constituting a trivial proportion of the total compounds encompassed by formula I. In particular, *Erickson* does not teach how to make any species encompassed within the scope of Applicants' Claims 1-3, 5, 14-19, 21, 30-32, 34, 43-45, 47, 56-58, 60, 69-71, 73, 82, and 83. Thus, *Erickson* does not teach how to make triazine compounds that include any combination of substituents Z, R¹¹, and [V]-R⁶ that overlap Applicants' claimed compounds. Therefore, the syntheses on pages 23-35 and compounds of Table 1 on pages 36-54 neither teach nor suggest Applicants' claimed invention. In addition, when all compounds disclosed in *Erickson* are compared against the genus disclosed in Claims 1, 14, 30, 43, 56, 69, and 82-85, no overlap whatsoever is discovered.

Respectfully, Applicants maintain that all the possible compounds encompassed within *Erickson's* formula I constitute, *at best*, a "wish list" of hypothetical compounds the *Erickson* Applicant would hope to patent. The mere inclusion of a chemical moiety in an exhaustive "laundry list" encompassing virtually every conceivable substituent, is not a theory, a suggestion, or a teaching, and is insufficient to teach the "equivalency" of the formula I substituents and Applicant's claimed compounds, absent a reasonable likelihood of success. The reasonable likelihood of success is absent because, at best, *Erickson* discloses how to make only a fraction of the formula I compounds. Accordingly, *Erickson* can not teach or suggest all the limitations of the Applicants' Claims 1-3, 5, 14-19, 21, 30-32, 34, 43-45, 47, 56-58, 60, 69-71, 73, 82, and 83.

Further, Applicants emphasize that *Erickson's* "wish list" of hypothetical compounds constitutes, *at best*, a call for virtually endless experimentation. The Federal Circuit has held that suggestion for virtually endless experimentation is not a case for *prima facie* obviousness.¹¹ The foundation of this holding is analogous to the Federal Circuit's holding in *In re Geiger*, where the court held:

At best, in view of these disclosures, one skilled in the art might find it obvious to try various combinations of these known scale and corrosion prevention agents. However this is not the standard of 35 U.S.C. § 103. (citations omitted)

815 F.2D AT 268, 2 USPQ2D AT 1278.

Applicants respectfully maintain that no convincing line of reasoning has been offered by the PTO as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of *Erickson*. No teaching or suggestion can be found in Table 1 (pages 36-54), in the syntheses on pages 23-35, in generic formula I, or elsewhere in *Erickson*, that would render obvious Applicants' claimed invention. Without a suggestion or incentive to modify *Erickson*, the formula I genus cannot serve to render obvious Applicants' claimed invention.

Respectfully, Applicants maintain that Claims 1-3, 5, 14-19, 21, 30-32, 34, 43-45, 47, 56-58, 60, 69-71, 73, 82, and 83 are not rendered *prima facie* obvious in view of the cited reference

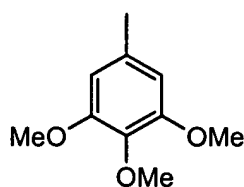
¹¹ *In re Dow Chemical Co.*, 837 F.2d 469, 473, 5 USPQ2d 1529, 1532 (Fed. Cir. 1989).

under 35 U.S.C. § 103(a) for the reasons stated, and respectfully request that this rejection be withdrawn and these claims be allowed.

E. Claims 1-3, 5, 14-19, 21, 30-32, 34, 43-45, 47, 56-58, 60, 69-71, 73, 82, and 83 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Armistead et al.* WO 01/25220 ("*Armistead*"). According to the PTO, *Armistead* discloses triazine formula I with substituents R^1 and R^2 (Abstract and pages 5-28). Apparently, it is the position of the PTO that *Armistead* teach *Armistead's* formula I (Abstract) with Applicants' claimed compounds, thereby rendering obvious Claims 1-3, 5, 14-19, 21, 30-32, 34, 43-45, 47, 56-58, 60, 69-71, 73, 82, and 83. The PTO points to examples shown at pages 5-28, pages 37-167 (Table 1) and pages 170-295; *Armistead's* definitions of R^1 and R^2 ; and *Armistead's* preferred embodiments to support this assertion. Specifically, the PTO points out that when R^1 and R^2 is NHR^3 , NHR^5 , NHR^6 , NR^5R^5 , NR^5R^6 and the other NHR^5 , NHR^6 , NR^5R^5 , NR^5R^6 , the formula I of *Armistead* includes instant compounds when instant $p^1 = 0$ and R^{3a} is H. Especially page 96, compounds 580-581 and page 100 compounds 619 and 620. Respectfully, Applicants traverse this rejection.

Respectfully, Applicants maintain that page 96, compounds 580-581 and page 100

compounds 619 and 620 from *Armistead* contains
in the genus of the instant claims.



moiety that is not included

In addition, respectfully, Applicants maintain that *Armistead* provides no teaching, suggestion, or incentive, either expressly or impliedly, that would have motivated one of ordinary skill in the art to modify what this reference fairly discloses to arrive at Applicants' claimed invention.

Applicants have reviewed the preparative information on pages 170-295 and elsewhere in *Armistead* and respectfully maintain that preparations appear limited to specific triazine compounds constituting a trivial proportion of the total compounds encompassed by formula I. In particular, *Armistead* does not teach how to make any species encompassed within the scope of Applicants' Claims 1-3, 5, 14-19, 21, 30-32, 34, 43-45, 47, 56-58, 60, 69-71, 73, 82, and 83.

Thus, *Armistead* does not teach how to make triazine compounds that include any combination of substituents Z, R¹¹, and [V]-R⁶ that overlap Applicants' claimed compounds. Therefore, the syntheses on pages 170-295 and compounds of Table 1 on pages 37-167 neither teach nor suggest Applicants' claimed invention. In addition, when all compounds disclosed in *Armistead* are compared against the genus disclosed in Claims 1, 14, 30, 43, 56, 69, and 82-85, no overlap whatsoever is discovered.

Respectfully, Applicants maintain that all the possible compounds encompassed within *Armistead's* formula I constitute, *at best*, a "wish list" of hypothetical compounds the *Armistead* Applicant would hope to patent. The mere inclusion of a chemical moiety in an exhaustive "laundry list" encompassing virtually every conceivable substituent, is not a theory, a suggestion, or a teaching, and is insufficient to teach the "equivalency" of the formula I substituents and Applicant's claimed compounds, absent a reasonable likelihood of success. The reasonable likelihood of success is absent because, at best, *Armistead* discloses how to make only a fraction of the formula I compounds. Accordingly, *Armistead* can not teach or suggest all the limitations of the Applicants' Claims 1-3, 5, 14-19, 21, 30-32, 34, 43-45, 47, 56-58, 60, 69-71, 73, 82, and 83.

Further, Applicants emphasize that *Armistead's* "wish list" of hypothetical compounds constitutes, *at best*, a call for virtually endless experimentation. The Federal Circuit has held that suggestion for virtually endless experimentation is not a case for *prima facie* obviousness.¹² The foundation of this holding is analogous to the Federal Circuit's holding in *In re Geiger*, where the court held:

At best, in view of these disclosures, one skilled in the art might find it obvious to try various combinations of these known scale and corrosion prevention agents. However this is not the standard of 35 U.S.C. § 103. (citations omitted)

815 F.2D AT 268, 2 USPQ2D AT 1278.

Applicants respectfully maintain that no convincing line of reasoning has been offered by the PTO as to why the artisan would have found the claimed invention to have been obvious in

¹² *In re Dow Chemical Co.*, 837 F.2d 469, 473, 5 USPQ2d 1529, 1532 (Fed. Cir. 1989).

light of the teachings of *Armistead*. No teaching or suggestion can be found in Table 1 (pages 37-167), in the syntheses on pages 170-295, in generic formula I, or elsewhere in *Armistead*, that would render obvious Applicants' claimed invention. Without a suggestion or incentive to modify *Armistead*, the formula I genus cannot serve to render obvious Applicants' claimed invention.

Respectfully, Applicants maintain that Claims 1-3, 5, 14-19, 21, 30-32, 34, 43-45, 47, 56-58, 60, 69-71, 73, 82, and 83 are not rendered *prima facie* obvious in view of the cited reference under 35 U.S.C. § 103(a) for the reasons stated, and respectfully request that this rejection be withdrawn and these claims be allowed.

Summary of Response to Rejection Under 35 U.S.C. § 103(a)

Claims 1-3, 5, 14-19, 21, 30-32, 34, 43-45, 47, 56-58, 60, 69-71, 73, 82, and 83 are rejected under 35 USC § 103(a) as being unpatentable over the following five patent references: *Moriarty et al.* (WO 01/47897), *Kamikubo et al.* (U.S. Patent No. 6,123,763), *Daeyaert et al.* (U.S. Patent No. 6,150,360), *Erickson et al.* (WO 01/47921), and *Armistead et al.* (WO 01/25220). This rejection is obviated in part and traversed in part, based upon the respective references as indicated above.

Each of Applicants' amended independent Claims 1, 14, 43, 56, 84, and 85 specifically excludes at least one substituents of *Daeyaert's* structure I (col. 1), and specifically excludes at least one substituents of *Kamikubo's* generic formula 1 (col. 2), as summarized in the Table below.

Claim No.	<i>DAEYAERT</i>	<i>KAMIKUBO</i>		
	Exclude overlap with <i>Daeyaert's</i> "NR ¹ R ² "	Exclude overlap with <i>Kamikubo's</i> "Y ₁ " against R ^{3a}	Exclude overlap with <i>Kamikubo's</i> "Y ₁ " against R ^{7a}	Exclude overlap with <i>Kamikubo's</i> "(R ₁) _k "
1	✓			✓
14	✓			
43	✓			
56	✓			
84	✓	✓		
85	✓		✓	

For the reasons stated above, Applicants have shown above that none of the cited references overlap Applicants' currently amended pending claims. In other words, none of the amended and/or pending claims read upon the cited references. Thus, the cited references do not teach or suggest the claimed invention. Accordingly, Applicants respectfully request that the rejection of claims 1 – 3, 5, 14 – 19, 21, 30 – 32, 34, 43 – 45, 47, 56 – 58, 60, 69 – 71, 73, and 82 – 83 under 35 USC § 103(a) be withdrawn.

Provisional Rejection of Claims under Obviousness-Type Double Patenting

Claims 1-3, 5, 14-19, 21, 30-32, 34, 43-45, 47, 56-58, 60, 69-71, 73, 82, and 83 are provisionally rejected under the doctrine of obviousness-type double patenting as being unpatentable over the co-pending Reddy U.S. Patent Applications 10/390,485 (Claims 1, 3-8, 12-13, 16-17, 20-21, 24-25, 28-29, 32, 36-37, 39-41, 43 and 76-134); 10/397,968 (Claims 1-5 and 7); 10/400,134 (Claims 1-5 and 7); 10/400,169 (Claims 1-5 and 7); and 10/400,140 (Claims 1-5 and 7).

In view of the terminal disclaimer filed herewith in compliance with 37 C.F.R. § 1.321(c) over co-pending applications 10/390,485, 10/397,968, 10/400,134, and 10/400,140, Applicants maintain that this rejection is obviated. Therefore Applicants respectfully request that this rejection be withdrawn and these claims allowed.

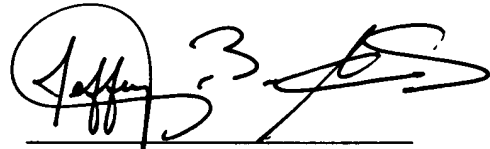
CONCLUSION

In view of the foregoing amendment and remarks, Applicants respectfully assert that all claims are in condition for allowance and request that an early notice of allowance be issued.

The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to account no. 09-0528.

Early and favorable consideration is respectfully solicited. If the Examiner believes any informalities remain in the application that can be resolved by telephone interview or by an Examiner's Amendment, a telephone call to the undersigned attorney is respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Jeffery B. Arnold", is written over a horizontal line. The signature is stylized with a large, circular initial "J" and a long, sweeping horizontal stroke.

By: Jeffery B. Arnold
Reg. No. 39,540

Date: August 21, 2006

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Atty. Docket No.: R18631 1090.1 (51880.0051.5)